

Footprint concept for DR-SST turbines



Footprint concept

With the footprint concept, the turbine and all its components are modernized but their dimensions and the positioning of the flanges are not changed, with the result that they can be perfectly integrated into the existing infrastructure.

In the process, it's possible to determine exactly which turbine components should be reworked to improve efficiency or performance.



Choose your Turbine Type
to see some details



Choose your Turbine Type to see some details



D-R SST 350

Technical Data:

- Rugged, versatile proven API design
- Woodward Oil Relay governors NEMA Class A and class D constant speed governor or electronic governor
- Horizontally split casing with centerline support
- Overspeed mechanical trip valve, separated from governor valve
- Carbon ring or labyrinth sealing glands
- Oil ring lubricated with forced lubrication as option
- Rolling ball bearing or Tilt-pad thrust bearings
- Steel or bronze backed sleeve bearings. Ball bearing optional.
- Broad range of instrumentation and accessories available
- Dresser-Rand heritage

Typical Applications:

- Refineries
- Petrochemical plants
- Sugar Mills
- Steel industry
- Pulp & Paper
- Institutional
- Process waste heat recovery
- Replacement of steam pressure reduction valves
- Pump drives
- Fan drives
- Compressor drives
- Generator drives



Choose your Turbine Type to see some details



D-R SST 500

Technical Data:

- Rugged, versatile proven API design
- Woodward Oil Relay governors NEMA Class A and class D constant speed governor or electronic governor
- Horizontally split casing with centerline support
- Overspeed mechanical trip valve, separated from governor valve
- Carbon ring or labyrinth sealing glands
- Oil ring lubricated with forced lubrication as option
- Rolling ball bearing or Tilt-pad thrust bearings
- Steel or bronze backed sleeve bearings. Ball bearing optional.
- Broad range of instrumentation and accessories available
- Dresser-Rand heritage

Typical Applications:

- Refineries
- Petrochemical plants
- Sugar Mills
- Steel industry
- Pulp & Paper
- Institutional
- Process waste heat recovery
- Replacement of steam pressure reduction valve
- Pump drives
- Fan drives
- Compressor drives
- Generator drives



Choose your Turbine Type to see some details



D-R SST 700

Technical Data:

- Rugged, versatile proven API design
- Woodward Oil Relay governors NEMA Class A and class D constant speed governor or electronic governor
- Horizontally split casing with centerline support
- Overspeed mechanical trip valve, separated from governor valve
- Carbon ring or labyrinth sealing glands
- Oil ring lubricated with forced lubrication as option
- Rolling ball bearing or Tilt-pad thrust bearings
- Steel or bronze backed sleeve bearings. Ball bearing optional.
- Broad range of instrumentation and accessories available
- Dresser-Rand heritage

Typical Applications:

- Refineries
- Petrochemical plants
- Sugar Mills
- Steel industry
- Pulp & Paper
- Institutional
- Process waste heat recovery
- Replacement of steam pressure reduction valve
- Pump drives
- Fan drives
- Compressor drives
- Generator drives



Choose your Turbine Type to see some details



D-R RLA

Technical Data:

- Rugged, versatile design
- Radially split casing with centerline support
- Woodward TG Oil Relay NEMA Class A constant speed governor
- API 611 compliant, positive seating, mechanical over-speed trip valve
- Separate double seated governor valve
- Built-in removable steam strainer
- Removable carbon ring sealing glands
- Oil ring lubricated
- Broad range of controls and accessories available
- COPPUS heritage

Typical Applications:

- Refineries
- Petrochemical plants
- Institutional
- Process pump drives
- Process waste heat recovery
- Replacement of steam pressure reduction valve
- Pump drives



Choose your Turbine Type to see some details



D-R RLH

Technical Data:

- Rugged, versatile API design
- Woodward TG Oil Relay NEMA Class A constant speed governor or electronic governor
- Horizontally split casing with centerline support
- API 611 compliant, positive seating, mechanical over-speed trip valve
- Separate double seated governor valve
- Built-in removable steam strainer
- Carbon ring sealing glands
- Oil ring lubricated with forced pressure lubrication or circulating oil cooling options
- Broad range of controls and accessories available
- COPPUS heritage

Typical Applications:

- Refineries
- Petrochemical plants
- Food processing
- Institutional
- Process waste heat recovery
- Replacement of steam pressure reduction valve
- Pump drives
- Fan drives
- Compressor drives
- Generator drives

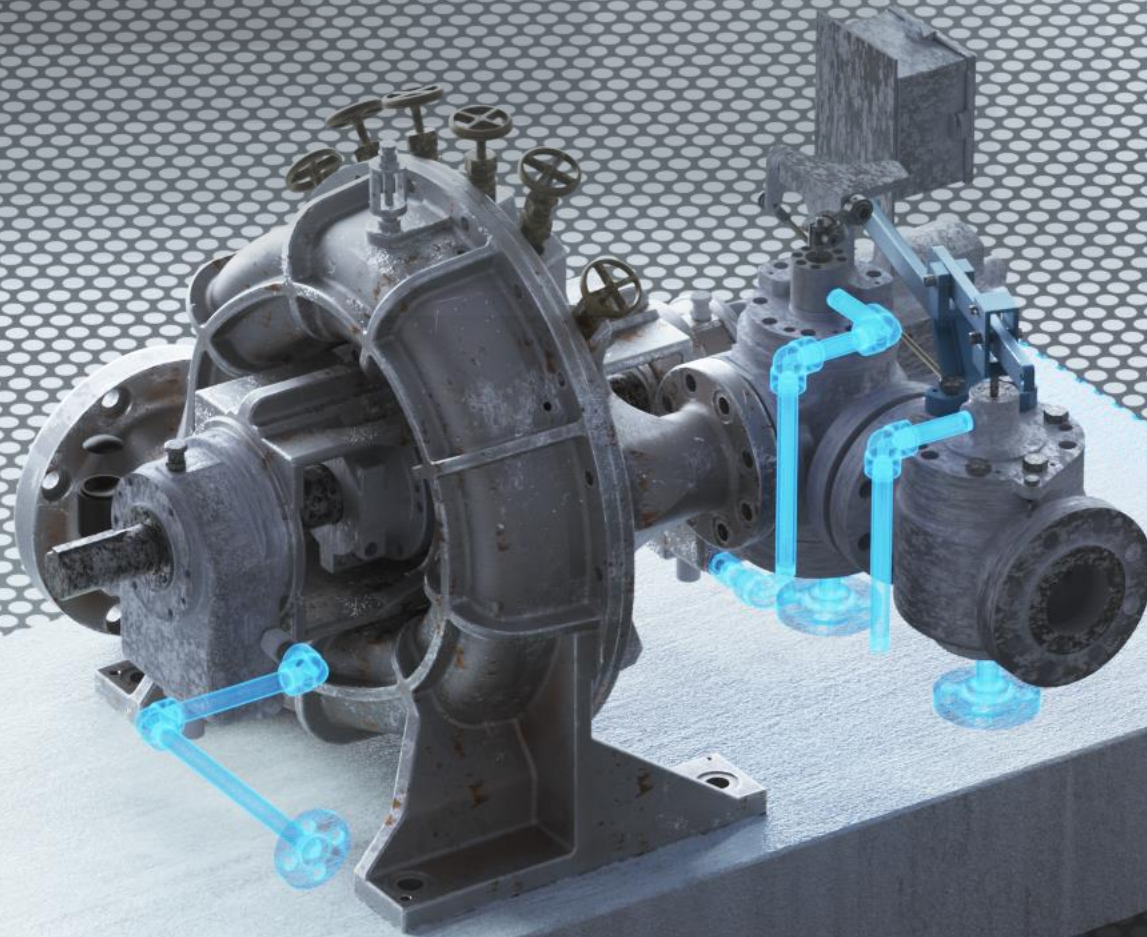


Footprint concept in detail

Existing turbine is completely removed

New turbine is inserted

Modernization components



Your benefits at a glance



Footprint concept in detail

Existing turbine is completely removed

New turbine is inserted

Modernization components

What exactly happens?

- The entire turbine is removed from the existing infrastructure without the need for further investments in connecting cables and terminals.

Your benefits at a glance



Footprint concept in detail

Existing turbine is completely removed

New turbine is inserted

Modernization components

What exactly happens?

- The entire machine is replaced by a fully updated turbine.
- The components that are replaced are described in more detail below.

Your benefits at a glance

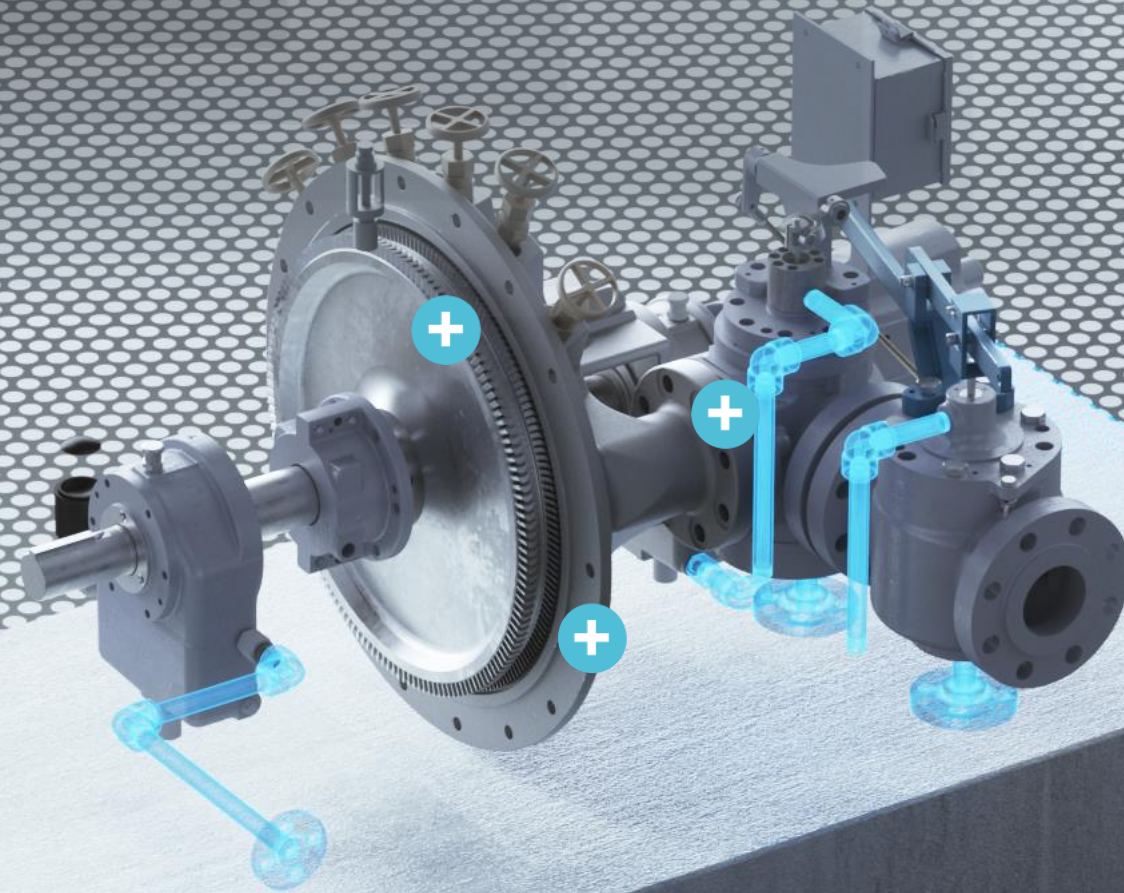


Footprint concept in detail

Existing turbine is completely removed

New turbine is inserted

Modernization components



Your benefits at a glance



Footprint concept in detail

Existing turbine is completely removed

New turbine is inserted

Modernization components

What exactly happens?

Customized technical solution for the entire steam path:

- Blades
- Wheel
- Nozzle and Guide Ring

Your benefits at a glance

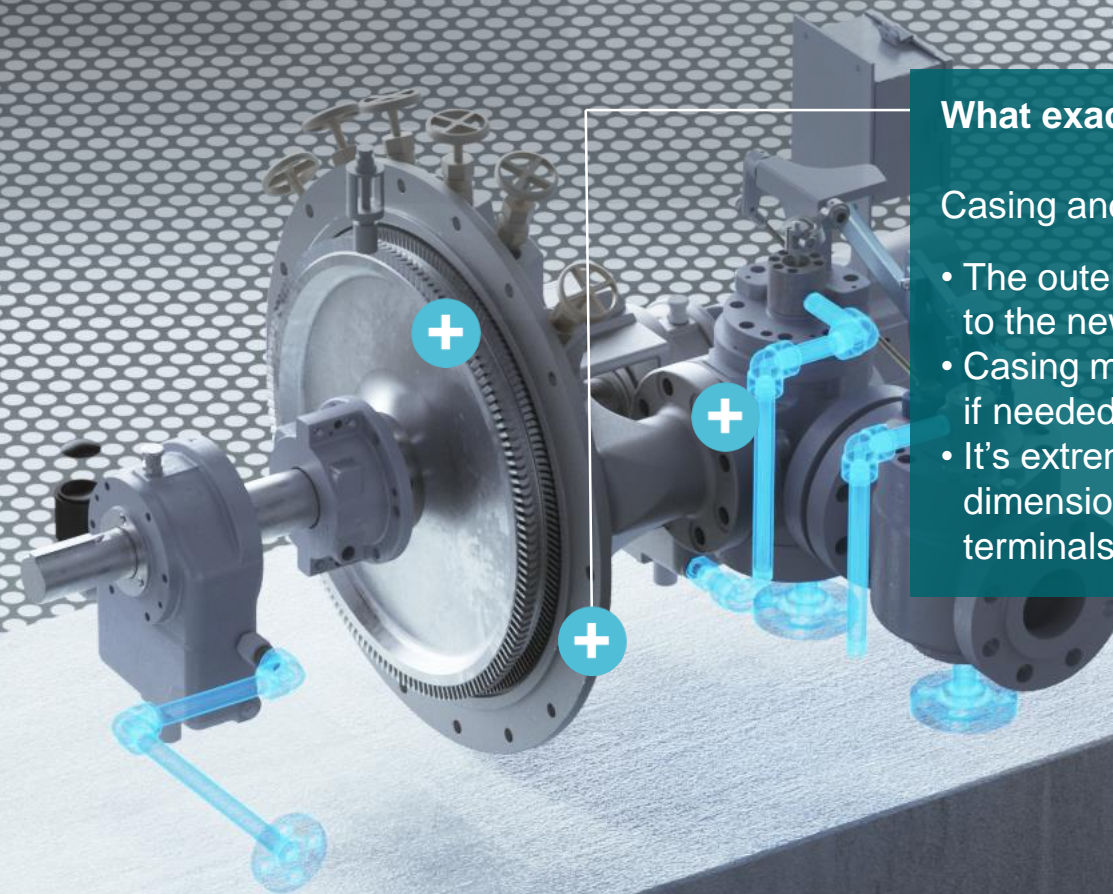


Footprint concept in detail

Existing turbine is completely removed

New turbine is inserted

Modernization components



What exactly happens?

Casing and connections:

- The outer casing is also tailored to the new requirements.
- Casing material can be improved if needed (Stainless steel)
- It's extremely important that the dimensions and positioning of the terminals are not being changed.

Your benefits at a glance

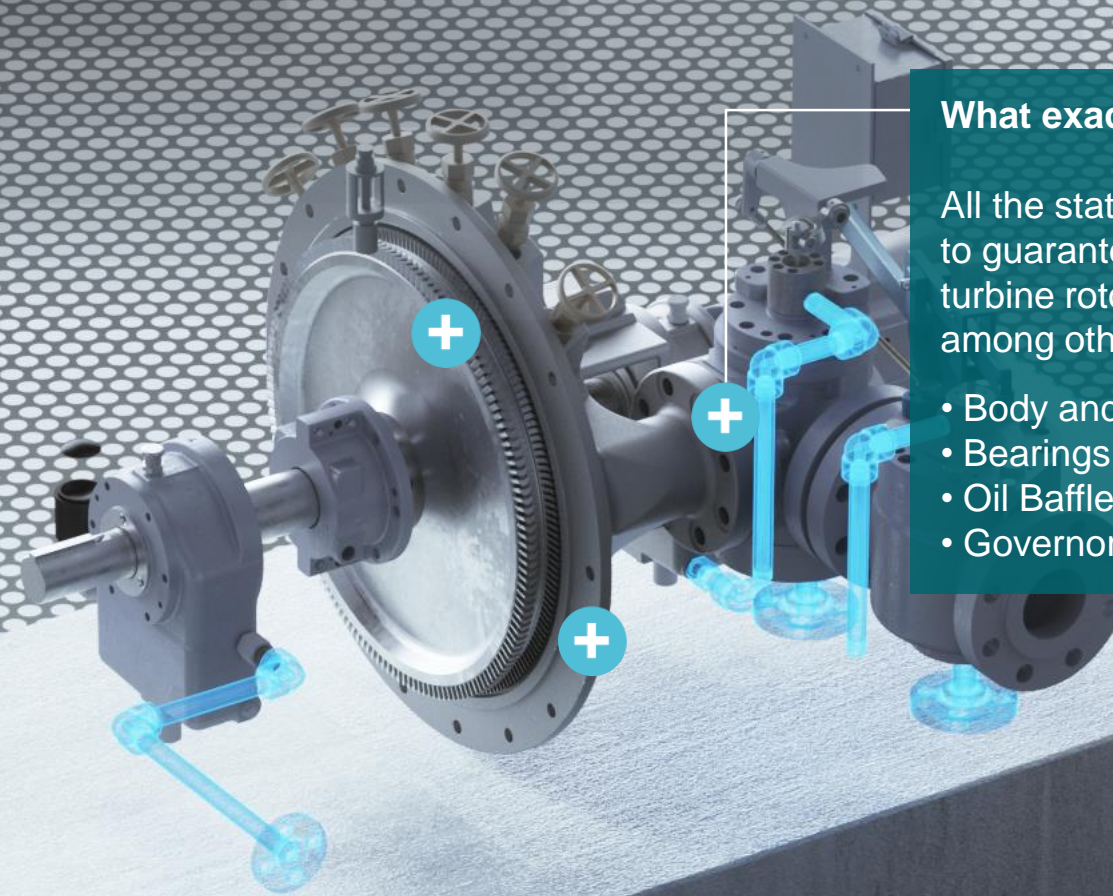


Footprint concept in detail

Existing turbine is completely removed

New turbine is inserted

Modernization components



What exactly happens?

All the stationary components are replaced to guarantee optimal interaction with the turbine rotor, including the blading and, among others:

- Body and hand valves
- Bearings
- Oil Baffles
- Governor

Your benefits at a glance

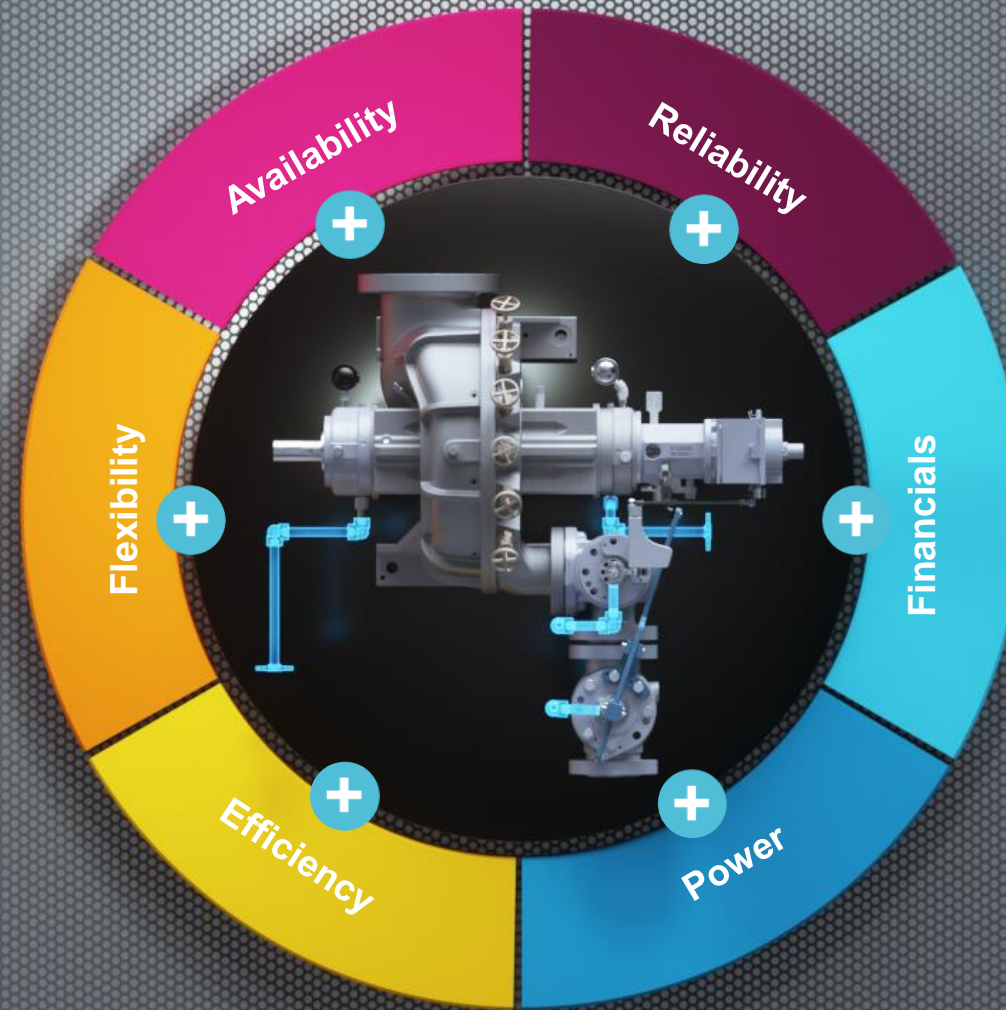


Footprint concept – Your benefits at a glance

Existing turbine is
completely removed

New turbine is inserted

Modernization components



Your benefits at a glance

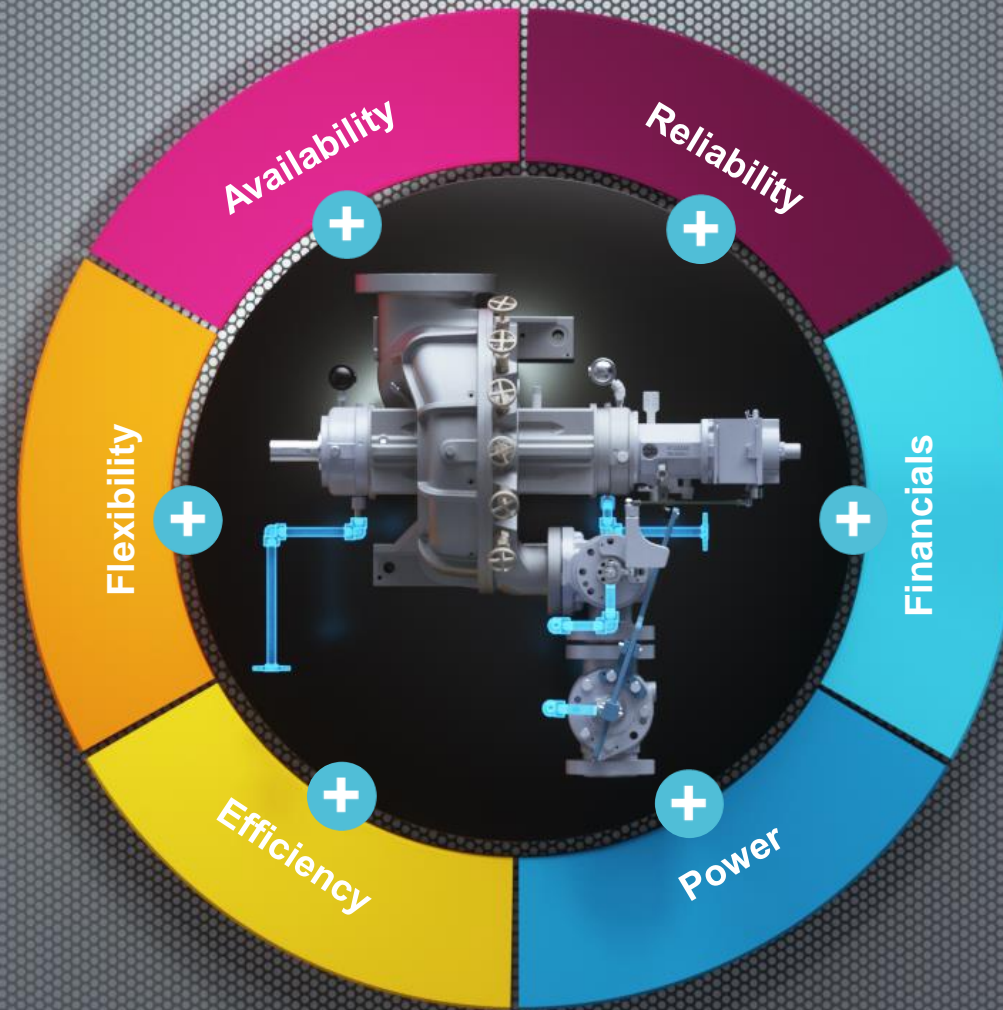


Footprint concept – Your benefits at a glance

Existing turbine is
completely removed

New turbine is inserted

Modernization components



Reliability

Your benefits

- Turbine tailored to individual requirements
- OEM's know-how and technical expertise

Your benefits at a glance

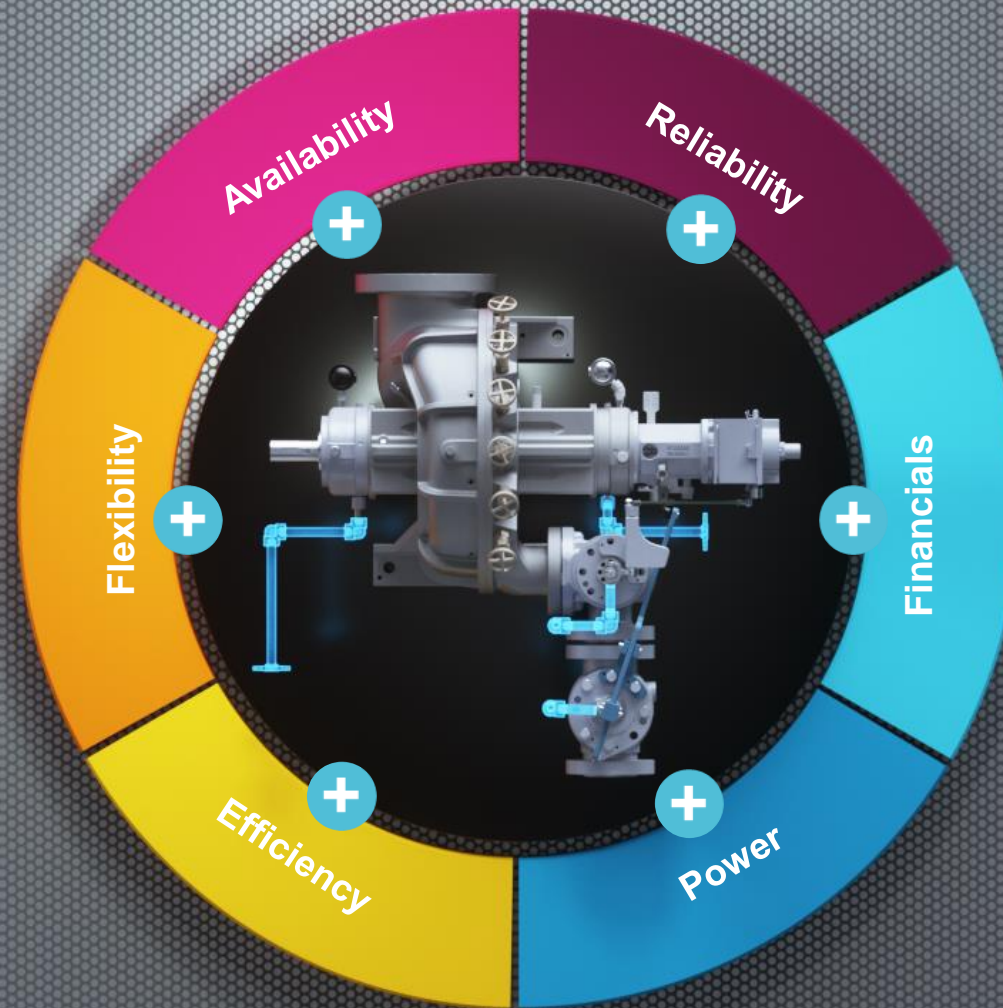


Footprint concept – Your benefits at a glance

Existing turbine is
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New turbine is inserted

Modernization components



Financials

Your benefits

- Cost advantage compared to a new turbine thanks to the use of existing spare parts (e.g. blades)

Your benefits at a glance

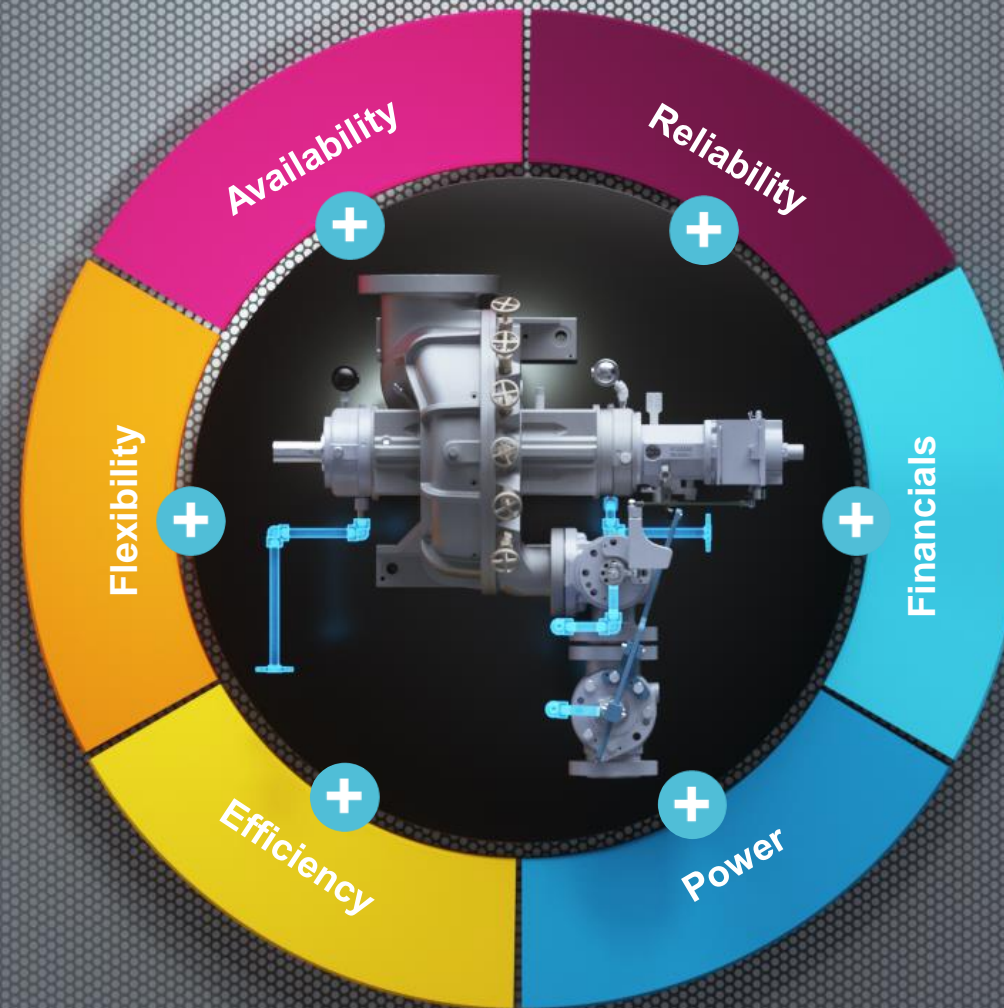


Footprint concept – Your benefits at a glance

Existing turbine is
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New turbine is inserted

Modernization components



Power

Your benefits

- New, state-of-the-art turbine adapted to changed operating parameters
- Optimal turbine performance

Your benefits at a glance

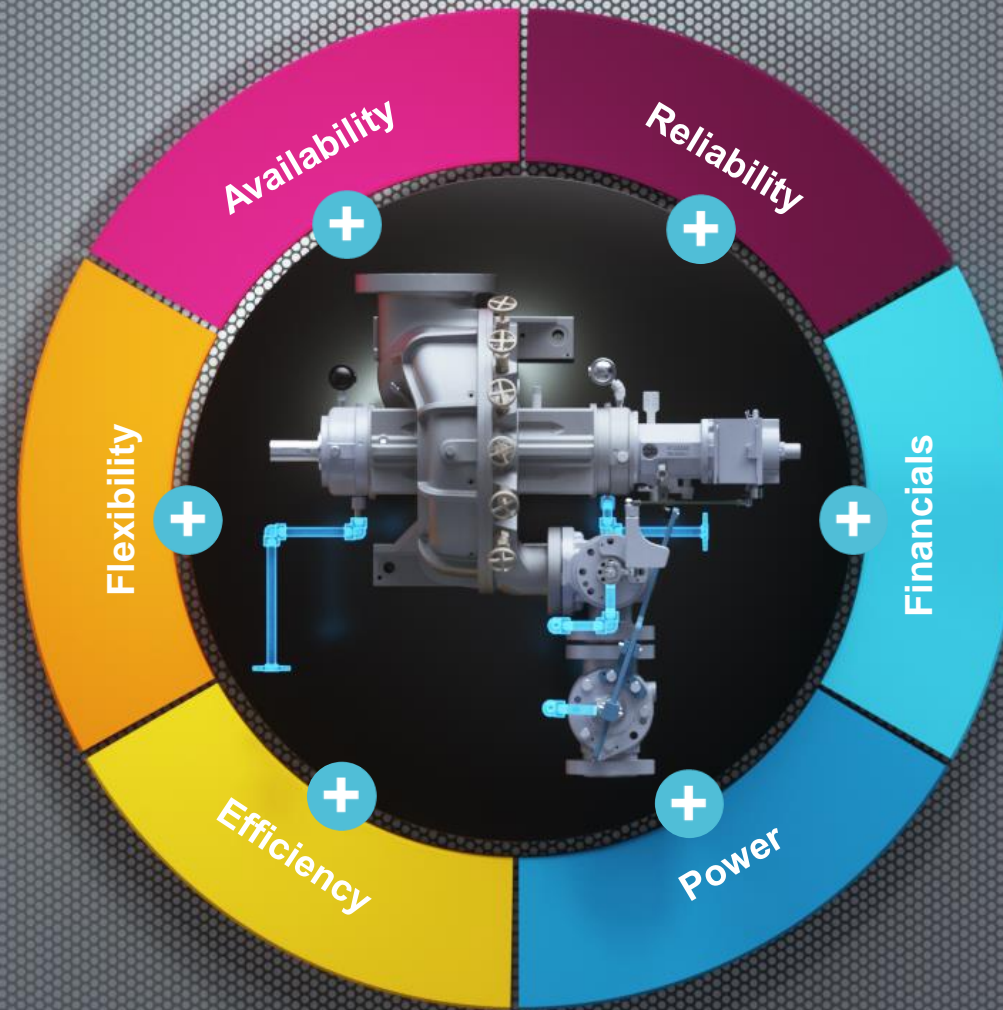


Footprint concept – Your benefits at a glance

Existing turbine is
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New turbine is inserted

Modernization components



Efficiency

Your benefits

- Improved energy efficiency thanks to state-of-the-art technology, e.g. blades, nozzle and guide ring

Your benefits at a glance

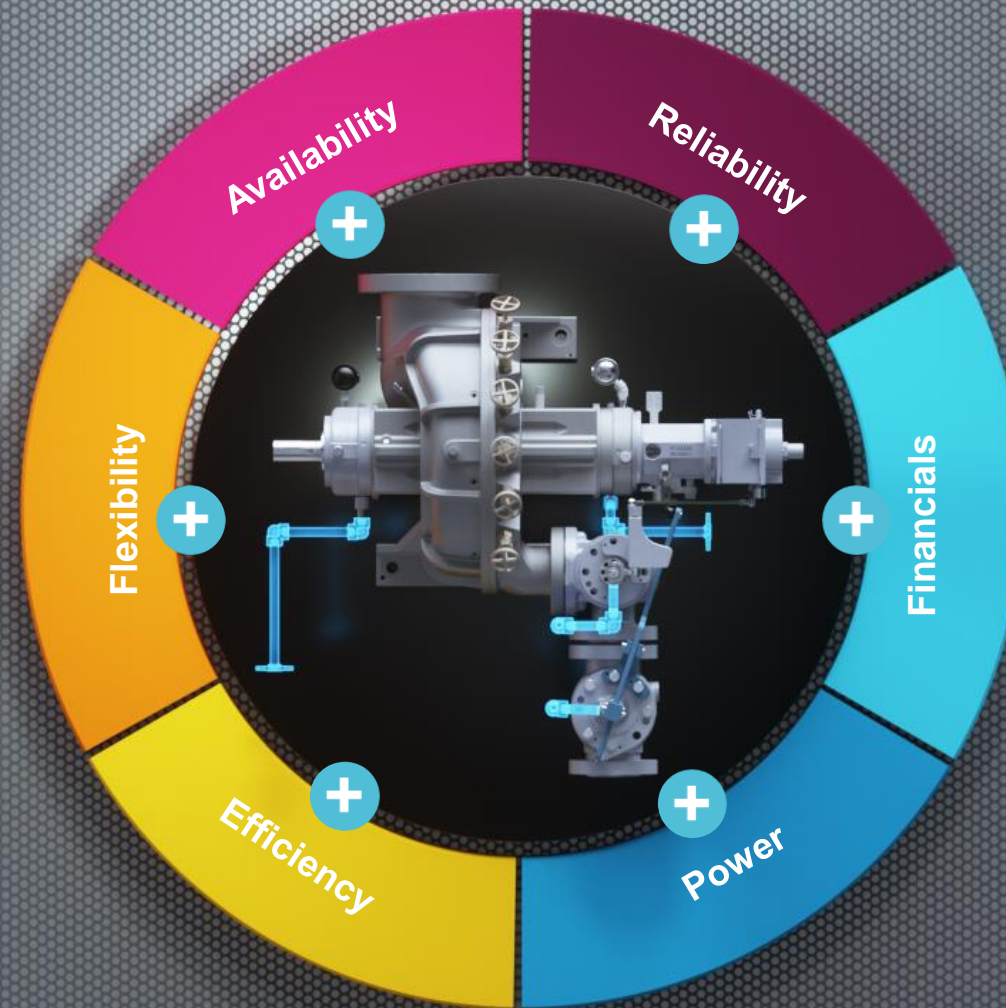


Footprint concept – Your benefits at a glance

Existing turbine is
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New turbine is inserted

Modernization components



Flexibility

Your benefits

- The footprint concept permits an eventual adaptation to future system requirements in terms of flexibility

Your benefits at a glance

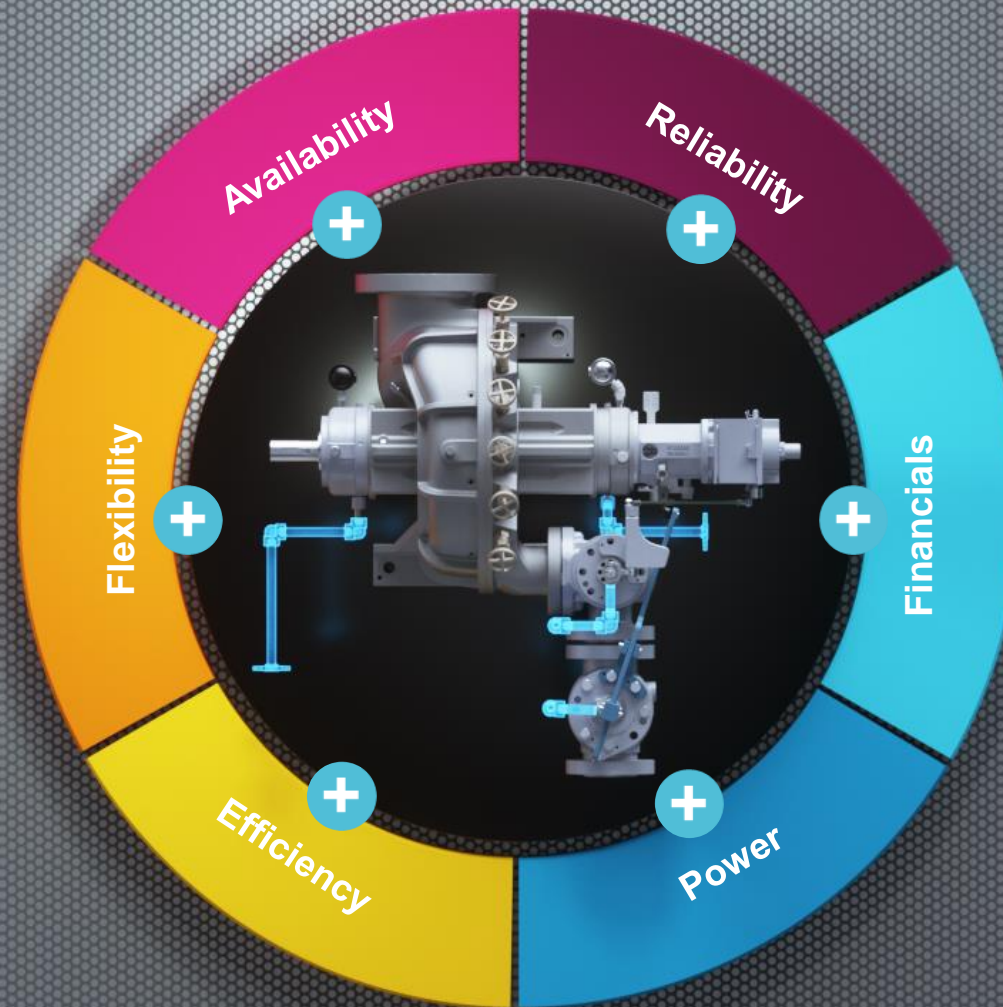


Footprint concept – Your benefits at a glance

Existing turbine is
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New turbine is inserted

Modernization components



Your benefits at a glance

Availability

Your benefits

- Minimal training requirements because personnel continue to work with the known system
- Minimal service interruption because the entire turbine is replaced instead of repairing/modernizing individual components
- No problems with adapting to existing peripherals

